



Risk Analysis Self-Assessment

Guide for Critical Infrastructure Protection

Utah Department of Public Safety

Utah Division of Homeland Security

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A Note about Security for this Document

This document contains sensitive information about the security of your infrastructure. Therefore, it should be treated as Confidential Information and should be stored in a secure place in the organization. A duplicate copy should also be stored in a secure off-site location.

Acknowledgments

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Criticality to the State of Utah or Region's Infrastructure

This factor addresses the criticality of the asset in its support of the State of Utah or region's capability to continue the primary purpose of the infrastructure. Considering this factor ensures that assets that are critical to the State of Utah or region receive highest priority.

Criticality	Rating Value	Rating Received
Asset's loss would have negligible impact on the State of Utah or region's infrastructure.	0	
Asset's loss would have minor impact on the State of Utah or region's infrastructure.	1	
Asset's loss would have moderate impact on the State of Utah or region's infrastructure.	2	
Asset's loss would have significant impact on the State of Utah or region's infrastructure.	3	
Asset's is critical to the State of Utah or region's infrastructure. Loss would have serious impact to the State of Utah or region.	4	
Asset's is essential to the State of Utah or region's infrastructure. Loss cannot be tolerated.	5	

Criticality to the Infrastructure

This factor addresses the criticality of the asset in its support of the infrastructure capability to continue its primary purpose. It accounts for the fact that some assets may be critical to the infrastructure, but not to the State of Utah or region.

Criticality	Rating Value	Rating Received
Asset's loss would have negligible to the infrastructure's mission.	0	
Asset's loss would have minor to the infrastructure's mission.	1	
Asset's loss would have moderate impact to the infrastructure's mission.	2	
Asset's loss would have significant impact to the infrastructure's mission.	3	
Asset's is critical to the infrastructure. Loss would have serious impact to the infrastructure's mission.	4	
Asset's is essential to the infrastructure. Infrastructure could not carry out their mission without it.	5	

Ability to Replace the Asset

This factor addresses the time required to replace assets that have been compromised. Replacement can be either in-kind or with a reasonable substitute and can be either temporary or permanent. This factor accounts for the impact of delay in replacement of assets on the infrastructure's mission.

Ability to Replace	Rating Value	Rating Received
Asset can be replaced within 0 to 5 days.	0	
Asset can be replaced within 6 to 30 days.	1	
Asset can be replaced within 31 to 90 days.	2	
Asset can be replaced within 91 to 180 days.	3	

Asset replacement will require more than 180days.	4	
Asset cannot be replaced.	5	

Infrastructure Profile

This factor addresses the public's likely awareness of the asset's existence and its visibility to them in terms of their perception of its importance or value.

Level of Visibility	Rating Value	Rating Received
Asset is invisible to the public. Existence is classified or unknown.	0	
Asset has very low visibility to the public. Aggressor is probably not aware of its existence	1	
Asset has low visibility to the public. Existence of asset is probably not well known to aggressor.	2	
Asset has medium visibility to the public. Existence of asset is probably known to aggressor.	3	
Asset has high visibility to the public. Existence of asset is probably well known to aggressor.	4	
Asset has very high visibility to the public. Existence of asset is obvious to aggressor.	5	

Accessibility to Facility

This factor addresses any protective measures that are in place for existing facilities or planned for new facilities. (buildings, shops, etc).

Accessibility	Rating Value	Rating Received
Facility is within a fenced or walled area with pass access only, security lighting, CCTV, on-site guards and no authorized parking within 50 feet.	0	
Facility is within a fenced or walled area with controlled access of visitors or non-staff, security lighting, roving patrols, and no authorized parking within 50 feet.	1	
Facility is within a fenced or walled area with controlled access of visitors or non-staff, security lighting, and authorized parking within 50 feet.	2	
Facility is within a fenced or walled area with controlled access of visitors or non-staff, and authorized parking within 50 feet.	3	
Facility is not fenced or walled with controlled access of visitors or non-staff, and authorized parking within 50 feet.	4	
Facility is not fenced or walled with no controlled access, and authorized parking within 50 feet.	5	

Accessibility to Equipment

This factor addresses any protective measures that are in place for existing facilities or planned for new facilities. (vehicles, pumps, generators, moveable items, fuels, chemicals, explosives etc).

Accessibility	Rating Value	Rating Received
Storage is within a fenced or walled area with pass access only, security lighting, CCTV, on-site guards and no authorized parking within 50 feet.	0	
Storage is within a fenced or walled area with controlled access of visitors or non-staff, security lighting, roving patrols, and no authorized parking within 50 feet.	1	
Storage is within a fenced or walled area with controlled access of visitors or non-staff, security lighting, and authorized parking within 50 feet.	2	
Storage is within a fenced or walled area with controlled access of visitors or non-staff, and authorized parking within 50 feet.	3	
Storage is not fenced or walled with controlled access of visitors or non-staff, and authorized parking within 50 feet.	4	
Storage is not fenced or walled with no controlled access, and authorized parking within 50 feet.	5	

<u>Sum of Asset Rating</u>	<u>Sum of Asset Received</u>	<u>Rating</u>
0 to 6		Very Low (VL) or 1
7 to 12		Low (L) or 2
13 to 18		Medium (M) or 3
19 to 24		High (H) or 4
25 to 30		Very High (VH) or 5

Relative Value of Equipment

This factor provides a measure of the relative value of equipment (vehicles, pumps, generators, moveable items, etc.) based on the cost of the asset or other measures of value appropriate for equipment.

Asset Characteristics	Rating Value	Rating Received
Fewer than 20 vehicles or equipment accessible in a single location. Vehicles and equipment are not sensitive to the infrastructure's mission.	1	
Fewer than 20 vehicles or equipment accessible in a single location. Some vehicles and equipment are sensitive to the infrastructure's mission.	2	
Fewer than 20 vehicles or equipment accessible in a single location. Vehicles and equipment are sensitive to the infrastructure's mission.	3	
Twenty or more vehicles or equipment accessible in a single location. Vehicles and equipment are not sensitive to the infrastructure's mission.	3	
Twenty or more vehicles or equipment accessible in a single location. Some vehicles and equipment are sensitive to the infrastructure's mission.	4	
Twenty or more vehicles or equipment accessible in a single location. Vehicles and equipment are sensitive to the infrastructure's mission.	5	

Relative Value of Other Assets

Relative value of assets not included in other sections (except people) is evaluated based upon the monetary value of the asset. The monetary value may be determined by an inventory of assets or for individual assets; whichever is most appropriate for the quantity of the assets being review. Actual quantity of the assets is accounted for in considering the mission criticality of the asset to the State of Utah, region or infrastructure.

Asset Characteristics	Rating Value	Rating Received
Value of asset inventory is less than \$25,000 or value of individual asset is less than \$5,000.	0	
Value of asset inventory is greater than or equal to \$25,000 and less than \$50,000 or value of individual asset is greater than or equal to \$5,000 and less than \$10,000.	1	
Value of asset inventory is greater than or equal to \$50,000 and less than \$100,000 or value of individual asset is greater than or equal to \$10,000 and less than \$25,000.	2	
Value of asset inventory is greater than or equal to \$100,000 and less than \$250,000 or value of individual asset is greater than or equal to \$25,000 and less than \$50,000.	3	
Value of asset inventory is greater than or equal to \$250,000 and less than \$500,000 or value of individual asset is greater than or equal to \$50,000 and less than \$100,000.	4	
Value of asset inventory is greater than or equal to \$500,000 or value of individual asset is greater than or equal to \$100,000.	5	

Relative Value of Asset to Aggressor

This factor addresses the usefulness of the asset to motivate the aggressor to compromise, disrupt or destroy the infrastructure.

Level of Usefulness	Rating Value	Rating Received
Asset has no value and usefulness or provides no motivation to the aggressor.	0	
Very low value and usefulness or provides very low motivation to the aggressor.	1	
Low value and usefulness or provides low motivation to the aggressor.	2	
Medium value and usefulness or provides medium motivation to the aggressor.	3	
High value or and usefulness provides high motivation to the aggressor.	4	
Very high value and usefulness or provides very high motivation to the aggressor.	5	

Relative Value of WMD/Hazard Threat

This factor provides a measure of the relative value of WMD/Hazard Threat (fuels, chemicals, explosives, etc.) is based on the quantity being stored.

Asset Characteristics	Rating Value	Rating Received
No WMD/Hazardous Materials Present.	0	
WMD/Hazardous Materials in moderate quantities with positive control and in a secured location.	1	
WMD/Hazardous Materials in moderate quantities and controlled.	2	
WMD/Hazardous Materials in major quantities with established control procedures and in a secured location.	3	
WMD/Hazardous Materials in major quantities with moderate control procedures.	4	
WMD/Hazardous Materials in major quantities and are accessible to non-staff personnel.	5	

Relative Value of People as Assets

Relative value of people as assets is evaluated based on the number of people present in the area being analyzed because establishing a monetary value for human lives is impractical. Separate scales are provided for critical and high-risk personnel (Corporate Officers) and the general population in the facility.

Population in the Facility	Rating Value	Rating Received
Number of critical or high-risk personnel or general population in the facility is likely to be zero.	0	
Number of critical or high-risk personnel in the facility is likely to be fewer than 3 or population in the facility is likely to be fewer than 10.	1	
Number of critical or high-risk personnel in the facility is likely to be greater than or equal to 3 and fewer than 10 or population in the facility is likely to be greater than or equal to 10 and fewer than 25.	2	
Number of critical or high-risk personnel in the facility is likely to be greater than or equal to 10 and fewer than 20 or population in the facility is likely to be greater than or equal to 25 and fewer than 50.	3	
Number of critical or high-risk personnel in the facility is likely to be greater than or equal to 20 and fewer than 30 or population in the facility is likely to be greater than or equal to 50 and fewer than 100.	4	
Number of critical or high-risk personnel in the facility is likely to be greater than or equal to 30 or population in the facility is likely to be greater than or equal to 100	5	

Relative Value of Surrounding Population

Relative value of people as assets is evaluated based on the number of people present in the area being analyzed because establishing a monetary value for human lives is impractical. Separate scales are provided for critical and high-risk personnel (Corporate Officers) and the general population in the facility.

Population	Rating Value	Rating Received
Population surrounding the infrastructure in a one-mile radius is likely to be zero.	0	
Population surrounding the infrastructure in a one-mile radius is likely to be greater than zero and fewer than 100.	1	
Population surrounding the infrastructure in a one-mile radius is likely to be greater than or equal to 100 and fewer than 1,000.	2	
Population surrounding the infrastructure in a one-mile radius is likely to be greater than or equal to 1,000 and fewer than 2,500.	3	
Population surrounding the infrastructure in a one-mile radius is likely to be greater than or equal to 2,500 and fewer than 5,000.	4	
Population surrounding the infrastructure in a one-mile radius is likely to be greater than 5,000.	5	

*May put in quantities or change quantities to assist in quantifying the rating. Could separate relative values into smaller categories if needed (weapons, vehicles, aircraft, medical supplies etc.)

Effectiveness of Law Enforcement

This factor addresses the general attitude of the local populace regarding their respect for and cooperation with the law enforcement community and the effectiveness of local law enforcement.

Perceived Regard for Law Enforcement	Rating Value	Rating Received
Law enforcement is extremely effective. Local populace has very high respect for law and police.	1	
Law enforcement is highly effective. Local populace has high respect for law and police.	2	
Law enforcement is moderately effective. Local populace has moderate respect for law and police.	3	
Law enforcement is mostly effective. Local populace has low respect for law and police.	4	
Law enforcement is ineffective. Local populace has very little respect for law and police.	5	

Deterrence

This factor addresses the aggressors' perception of the possibility that they will successfully compromise the asset and escape based upon obvious protective measures that tend to have a deterrent effect.

Deterrence for Assets	Rating Value	Rating Received
Aggressor would perceive a very low possibility of success and escape. Asset appears to be heavily protected. Obvious protective measures include building of concrete or masonry with window barriers and heavy steel doors, fencing, perimeter wall, access control, security lighting, CCTV, guards.	0	
Aggressor would perceive a low possibility of success and escape. Asset appears to be well protected. Obvious protective measures include building of concrete or masonry with window barriers and heavy steel doors, fencing, perimeter wall, access control, security lighting, guards.	1	
Aggressor would perceive a moderate possibility of success and escape. Obvious protective measures include building of concrete or masonry with window barriers and heavy steel doors, fencing, access control, security lighting.	2	
Aggressor would perceive a moderate possibility of success and escape. Obvious protective measures include building of lightweight construction with window barriers and heavy steel doors, fencing, access control, security lighting.	3	
Aggressor would perceive a high possibility of success and escape. Obvious protective measures include building of lightweight construction, fencing, security lighting on entrances only.	4	
Aggressor would perceive a very high possibility of success and escape. A building of lightweight construction with no visible protective measures.	5	

<u>Sum of Relative Values Rating</u>	<u>Sum of Relative Values Received</u>	<u>Rating</u>
0 to 8		Very Low (VL) or 1
9 to 16		Low (L) or 2
17 to 24		Medium (M) or 3
25 to 32		High (H) or 4
32 to 40		Very High (VH) or 5

Relative Values Assets	Very Low (VL) or 1	Low (L) or 2	Medium (M) or 3	High (H) or 4	Very High (VH) or 5
Very Low (VL) or 1	1	2	3	4	5
Low (L) or 2	2	4	6	8	10
Medium (M) or 3	3	6	9	12	15
High (H) or 4	4	8	12	16	20
Very High (VH) or 5	5	10	15	20	25